

```

A GAT CTG GCC AGC GCC GTG GGC ATC CAG TCC GGC AGC ATC TTT CAT CAC TTC AAG AGC AAG
▶ D L A S A V G I Q S G S I F H H F K S K
GAT GAG ATA TTG CGT GCC GTG ATG CAG GAA ACC ATC CAT TAC AAC ACC GCG ATG ATG CGC
▶ D E I L R A V M E E T I H Y N T A M M R
GCT TCA CTG GAG GAG GCG AGC ACG GTG CCG GAA CCG GTG CTG GCG CTG ATC CCG TGC GAG
▶ A S L E E A S T V R E R V L A L I R C E
TTG CAG TCG ATC ATG GGC GGC AGT GGC GAG GCC ATG GCG GTG CTG GTC TAC GAA TGG CGC
▶ L Q S I M G G S G E A M A V L V Y E W R
TCG CTG TCG GCC GAA GGC CAG GCG CAC GTG CTG GCC CTG CGT GAC GTG TAT GAG CAG ATC T
▶ S L S A E G Q A H V L A L R D V Y E Q I

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FIGURE 1

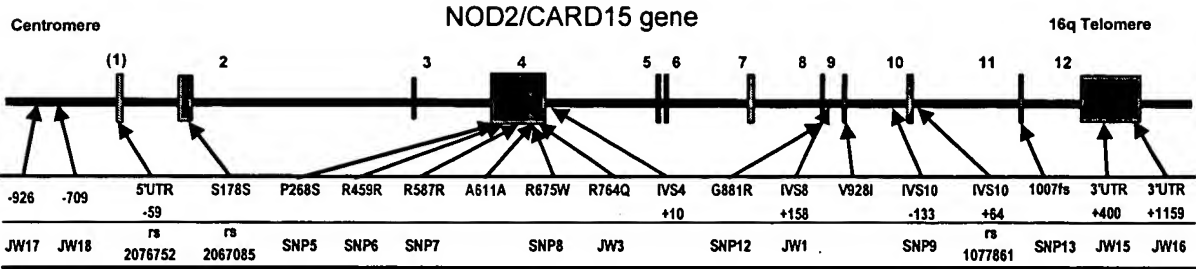


Figure 2A

3/12

R702W

5' ACCCTTCAGAT CACAGGAGCC TTCTTGGGAG GGGTGTGTCT CCGGAGCCAC 50
 3' TCGAAGTCTA GTGTGTGTGG AAGGACGGTC CCGGTAACAG GGGGCTGTGT
 TCGGGGCTCC TCGGTGAGTG CCGGACATCT CAGAGGCCCC TGGTGGGGTC 100
 ACCGGGAGG ACGGACTTAC GGTGTGTAGA CTCTTGGGG AGGAGGCTGC
 CCGCGGTGTG CCGGGCTGGT GTCTGGGGCG CAGGCTGGCC AAGGACTTCC 150
 GTTCCGACAC GGGGGACCA CAGACGGGGC GTGGGAGGG TTGGTGAGG
 ACTGCTTCCC CCGGCTTCCA CCGGGTACG CCGAGAGGCT GGTGGCCATG 200
 TCGGGTGGG CCGGTCAGCT GGGGCTTCC GTTGTGCGA CGTACGGTAC
 CCGGGGTTC TCTGGCTCAT CCGGAGGCTG TAGGATATCC AGGAGGACCG 250
 GGGGCAAGT ACAGCGAGTA GGGTGGGC ATGCTCTTAC TCTCTCTGG
 GGTGGCTGGC AAGGCTGGAC GTGGGCTGA TGTGGGAC CTCAGTTGA 300
 CGAGCGAC TTGGGAGTG CAGCGACTT ACAACCGCTG CAGTCAACT
 CATTGTGC TGTGGGGGCC ACTGAGTGTG GTGGGCTGGC CTTTGTGCTG 350
 GTAAPAGTC ACAACCGGGC TGAATCAC CAGGGAGCG GAAACAGTC
 CAGGAGTCC GGGGGGCGT GGGGCTGGC GTGGACTACA ACTGTGTGG 400
 GTGGTGGC GGGGGGCG CCGGAGCTC CAGTGTGT TCGGAGCC
 TCACTTGGC GTGGAGTCC TGTGGCTT CTTTGGTGT TCGAGGCTC 450
 ACTGTAAGC CAGTGTGT ACGAGGAC GGAAGGAC AGGTTCGAC
 TGTGTAAGT GTTGTGGC ATGGTGTTC AGGTAGGGC GAG 3' SEQ ID NO:3 494
 ACTGTAAGT CAGTGTGGC TGAATCAC TCGATAGCC CTCG 5' SEQ ID NO:4

FIGURE 2B

4/12

G908R

5' ATCAAAACCC TGACAGGACA AGGCACATTT CCAAGTCACC CAGAAAGACT 50
 3' TAGTTTIGGG ACTCTCTGT TCCCTGTAAA GGTTCAGTGG GTCITTTCTGA

 CGAGTGTCTT CTCTTGAAT CCAATGGTCT TTTTTCCTTA CTCCATGCCC 100
 GCTCACAGGA GAGAACTTTA GGTACCAGA AAAAAGGAAT GAGGTAACGG

 TAACATTGTG GGGTAGAAT AAAGTTCAAA GACCTTCAGA ACTGGCCCCA 150
 ATTGTAACAC CCAATCTTTA TTTCAAGTTT CTGGAAGTCT TGACCGGGGT

 GCTCTCTCTT CTTCACCTGA TCTCCCCAAG AAAACTGCAG GATAGACTCT 200
 CGAGGAGGGA GAAGTGGACT AGAGGGGTTC TTTTGACGTC CTATCTGAGA

 GAAGCTTACC TGACCCACCT CAAGCTCTGG TGATCACCCA AGGCTTCAGC 250
 CTTCGAATGG ACTCGGTGGA GTTCGAGACC ACTAGTGGGT TCCGAAGTGG

 CAGGGCTTGG GCGGCTCTGT CACCCA ctct gttgccccag aaTCTGAAAA 300
 GTCCCCGACC CCGGGGAGCA GTGGGTgaga caacgggggtc ttAGACTTTT

 GGCCAAAAGA GTCAACAGAC AGTGTTCAGTG AGTACCTGAT ATGTGTTCTA 350
 CCGGTTTTCT CAGTTGTCTG TCACAGTCAC TCATGGACTA TACACAAGAT

 GACATGAACT AACAGTCTTC CTCCCCTCTG AGTCCCAGCC AGAGCGGCAG 400
 CTGTAATIGA TTGTACAGAG GAGGAGACG TCAGGGTGGG TCTCCCCGTC

 GACCACTCAA TCCCAGAGTG GCTTCACCTG GCTCTCTGGT CCCAGCAAAG 450
 CTGGTGAGTT AGGGTCTCAC CCGAGTCACC CCGAGGACCA GGGTCTGTTT

 TGGACCTGCC TCCATCTTTT GGGTGGGATG GCCAAACTTA ACCCAACAGT 500
 ACGTGGACGG AGGTAGAAAA CCCACCCTAC CCGTTTGAAT TGGETTCTCA

 TTTTCAGTGGC TTTACATTAC AGACTTACAG AATAGTACAG 3'-SEQ ID NO5 540
 AAAGTCACCG AAATGTAATG TCTGAATCTC TTATCATCTC 5'-SEQ ID NO6

FIGURE 2C

5/12

1007fs

5' TTTAAAAATG AAATCATTGC TCCCTACTTA AAGAGGTAAA CACTTCTTTC 50
 3' AAATTTTTCAC TTTAGTAACG AGGCATGAAT TTCTCCATTT CTGAAGAAAG

 TTACACAGAG AATCAGATCC TTCACATCCA CAATCATTCT CACTGAATGT 100
 AATCTGTCTC TTAGTCTAGG AAGTGTACGT CTTAGTAACA GTCACTTACA

 CAGAATCAGA AGGCATCCTC AAAATTCTGC CATTCCTCTC TCCCGTCACC 150
 GTCTTAGTCT TCCCTAGGAG TTTTAAGAAG GTAAGGACAG AGGCCAGTGC

 CCATTTTACA CATAGAAAAA CTCAGGTTCC GAGAGCTAAA ACAGCCCTGC 200
 GGTAAAAATGT CTATCTTTTT CACTCCAAGC CTCCTCATTT TGTCGGGACG

 CCAGGGCCCT TACCAGACTT CCAGGATGGT GTCATC cctt tcaagggggcc 250
 GGTCGCCCGA ATGGTCTCAA GGTCCTACCA CAGTAaggaa agttccccgg

 tgcaggaggg CTTCTGCCCC TAGGTAGGTG ATGCAGTTAT TGGACAACCT 300
 agtTCCTCCC GAAGACGGGG ATCCATCCAC TAGGTCAATA ACCTGTTGGA

 GGAAAAGAAG ATACAATGGT GAGCTTCAAG GATTCTTGGT TTTCCTCTTG 350
 CCTTTTCTTC TATGTTACCA CTCGAAGTTC CTAAGAACCA AAAGCACAAC

 AAACGTGCCA GTTAAAGAGA CTGCAGGAGT TAGCCAGTCT ACTGAAGCCC 400
 TTTCACAGGT CAATTCTCTT CACGTCTCA ATCGGTCAGA TGACTTCGGG

 ACCGTGCCCC TAGACACATC CTGCTCATGT CTCGATTCC CAATGACCTC 450
 TGGACAGGGA ATCTGTGTAG CACGAGTACA GACTCTAAGG GTTACTCCAG

 ATCAACAAG GCTCAGTACC ATCAGTCAA TGTAACCGTC TCCTTTCCAT 500
 TAGTGTCTC CCAGTCATGG TAGTCACTTT ACATTGGCAG AGACAAGCTA

 TCACATCATG AGTTTATCAA ATTAAGTACC CACTCCCTTA G3'-SEQ ID NO 7 541
 AGTCTCTAC TCAATAGTT TAATTCATCG GTGAGGCAAT C5'-SEQ ID NO 8

FIGURE 2D

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atgaaagtta aagtactgtc cctcctggtc ccagctctgc tggtagcagg
cgcagcaaac gctgctgaag tttaacaaca agacggcaac aaattagatc
tgtacggtaa agtagacggc ctgcactatt tctctgacaa caaagatgta
gatggcgacc agacctacat gcgtcttggc ttcaaagggtg aaactcaggt
tactgaccag ctgaccgggtt acggccagtg ggaatatcag atccaggggca
acagcgctga aaacgaaaac aactcctgga cccgtgtggc attcgcaggt
ctgaaattcc aggatgtggg ttcttttcgac tacggtcgta actacggcgt
tgtttatgac gtaacttcct ggaccgacgt actgccagaa ttcggtggtg
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acctaccgta acactgactt cttcgggtctg gttgacggcc tgaactttgc
tgttcagtac cagggtaaaa acggcaaccc atctggtgaa ggctttacta
gtggcgtaac taacaacggt cgtgacgcac tgcgtcaaaa cggcgacggc
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gatctccagc tccaaacgta ctgatgctca gaacaccgct gcttacatcg
gtaacggcga ccgtgctgaa acctacactg gtggtctgaa atacgacgct
aacaacatct acctggctgc tcagtacacc cagacctaca acgcaactcg
cgtaggttcc ctggggttggg cgaacaaagc acagaacttc gaagctggtg
ctcagtagca gttcgacttc ggtctgcgtc cgtccctggc ttacctgcag
tctaaaggta aaaacctggg tcgtggctac gacgacgaag atatcctgaa
atatgttgat gttggtgcta cctactactt caacaaaaac atgtccacct
acgttgacta caaaatcaac ctgctggacg acaaccagtt cactcgtgac
gctggcatca acactgataa catcgtagct ctgggtctgg tttaccagtt c SEQ
ID NO: 9
```

FIGURE 3A

MKVKVLSELLVPALLVAGAANAEEVYNKDGKLDLYGKVDGLHYFSDNKDVDGDQTY
MRLGFKGETQVTDQLTGYGQWEYQIQGNSAENENNSWTRVAFAGLKFQDVGSGFDYGR
NYGVVYDVTSWTDVLPEFGGDTYGSDNFMQQRGNGFATYRNTDFFGLVDGLNFAVQY
QGKNGNPSGEGFTSGVTNNGRDALRQNGDGVGGSITYDYEGFGIGGAISSSKRTDAQNT
AAYIGNGDRAETYTGGLKYDANNIYLAAQYTQTYNATRVSGLGWANKAQNFEAVAQY
QFDFGLRPSLAYLQSKGKNLGRGYDDEDILKYVDVGATYYFNKNMSTYVDYKINLLDD
NQFTRDAGINTDNIVALGLVYQF

SEQ ID NO: 10

FIGURE 3B

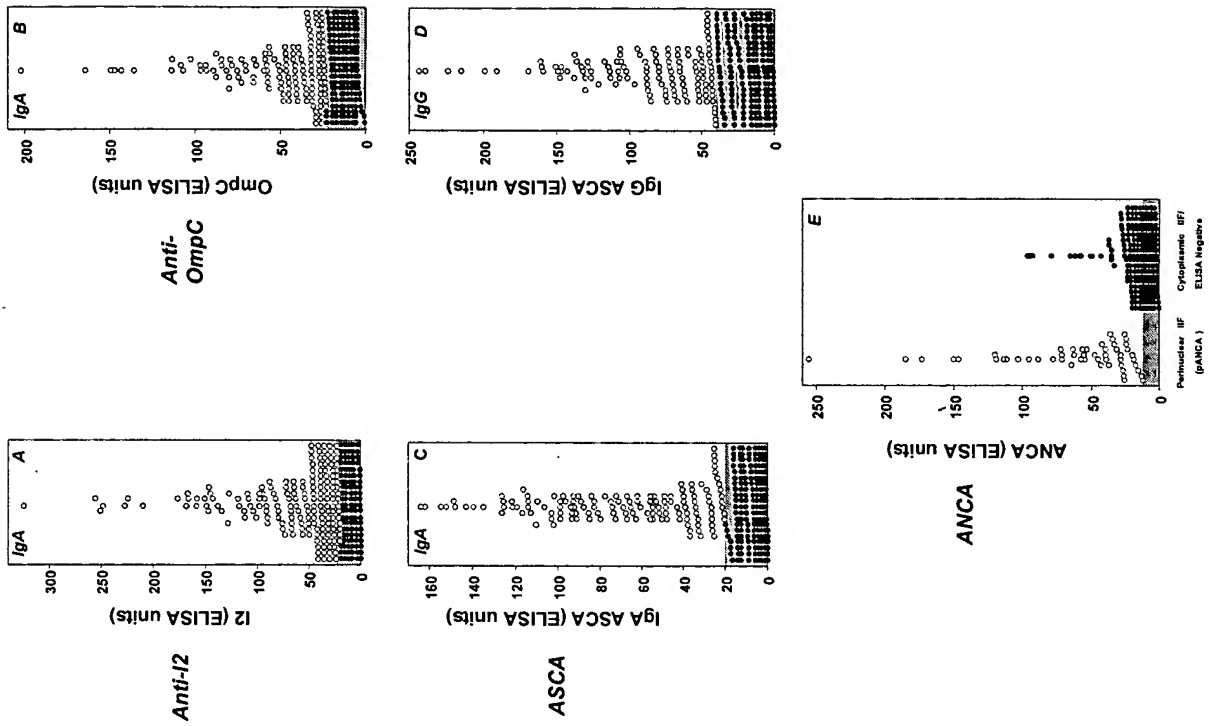


FIGURE 4

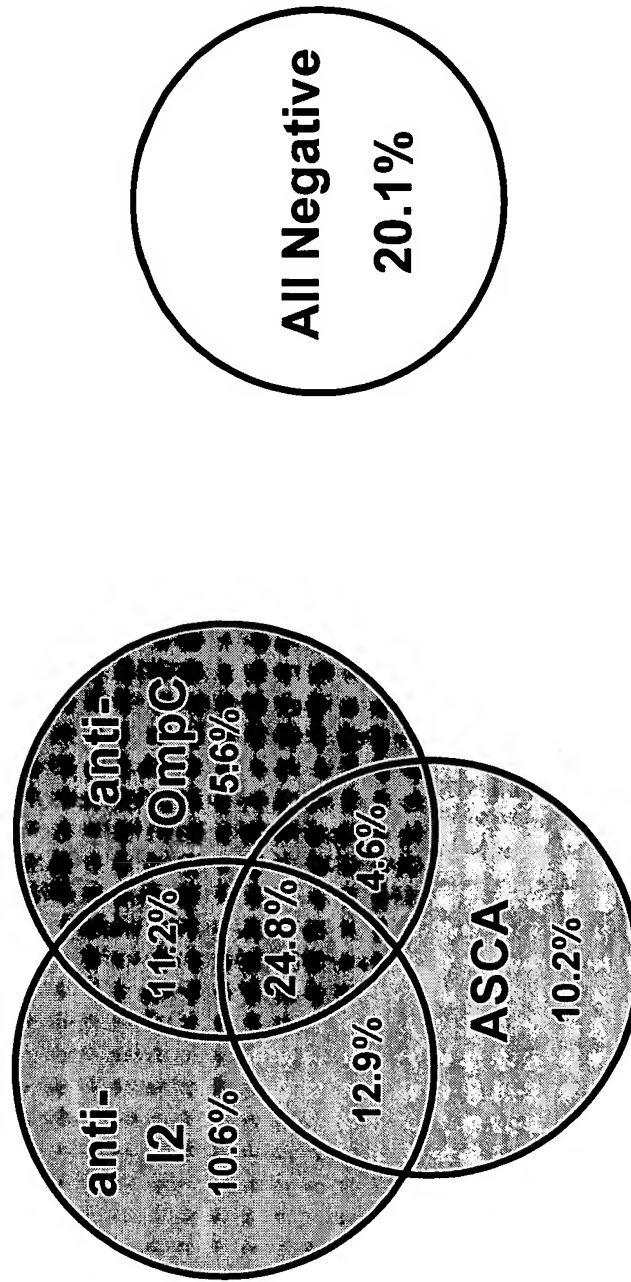


FIGURE 5

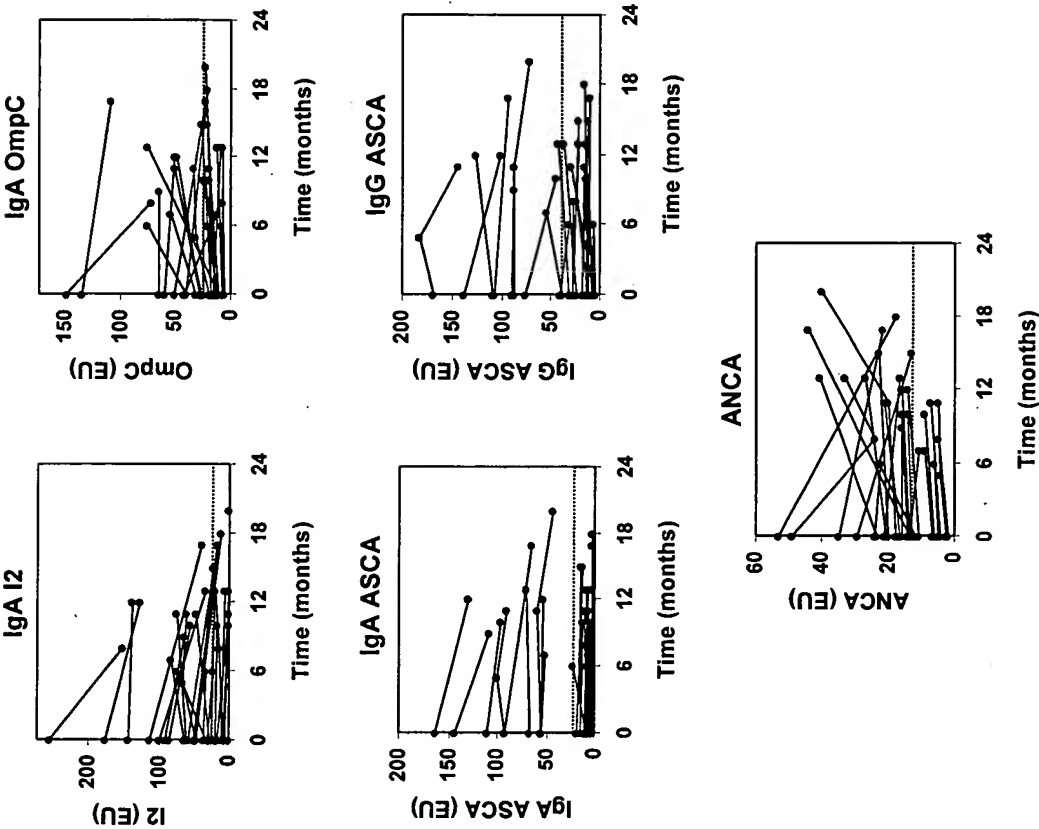


FIGURE 6

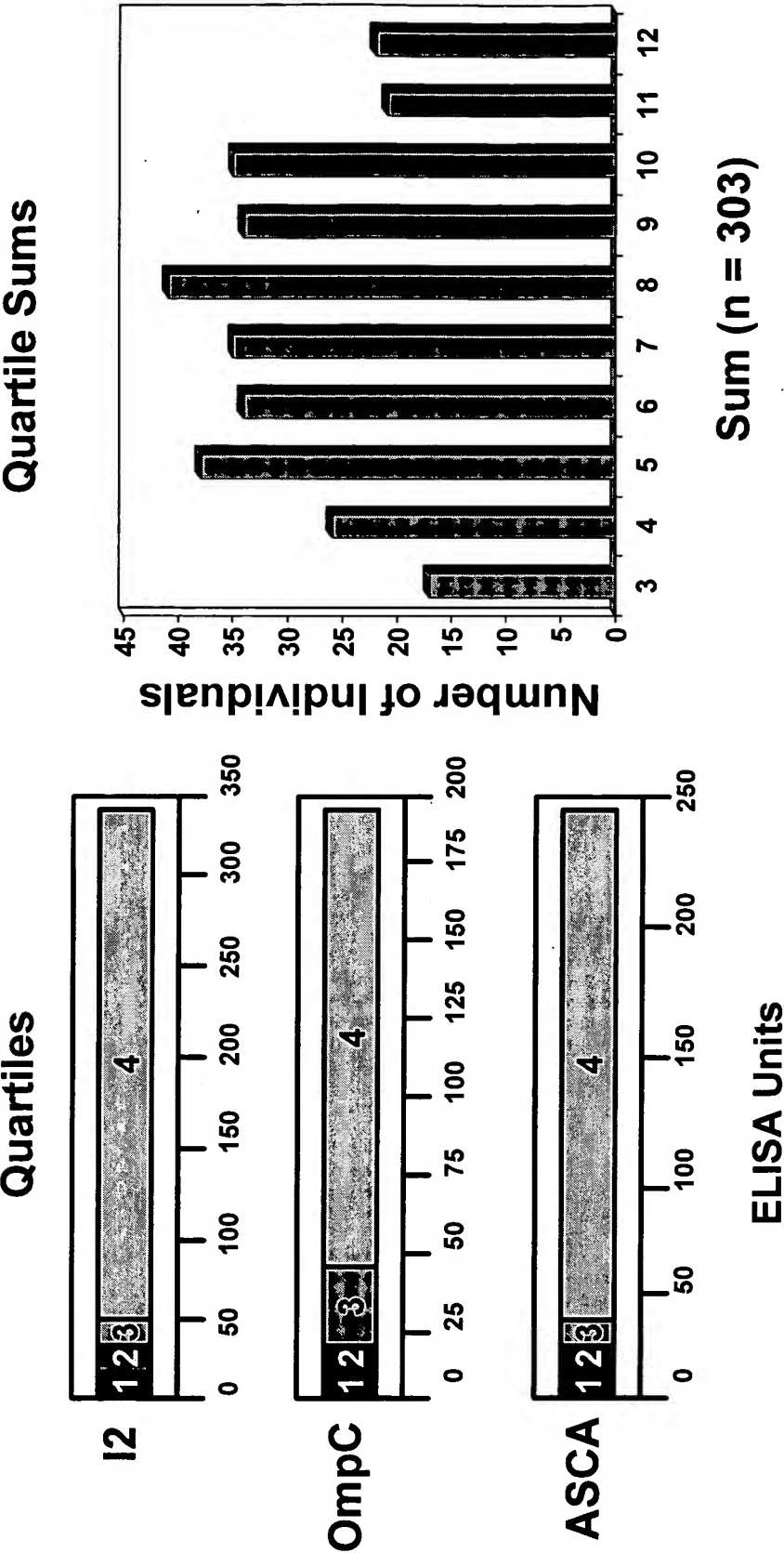


FIGURE 7

12/12

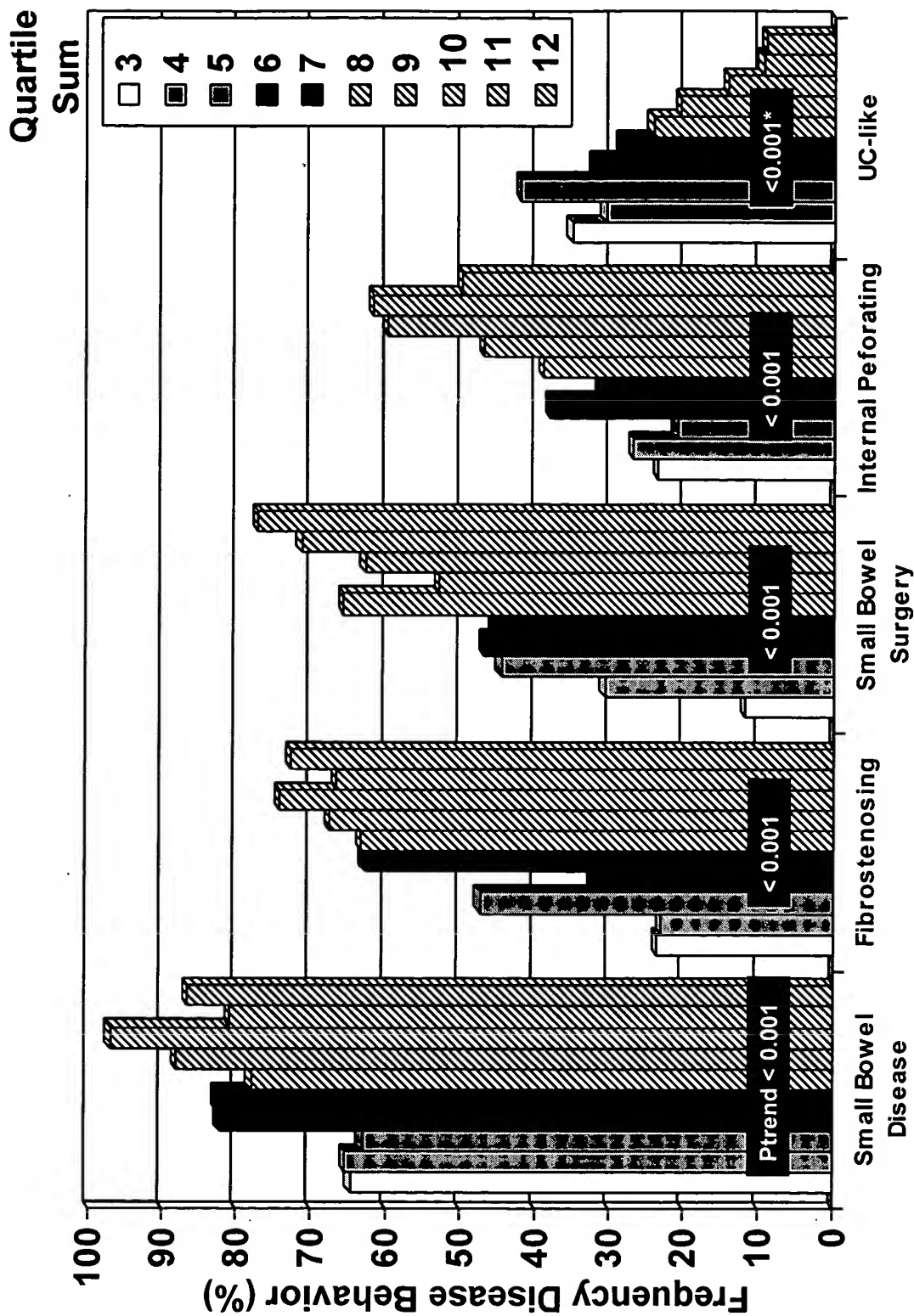


FIGURE 8

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